WHAT IS CLAIMED IS:

1. An isolated polypeptide which:

(A) is human Rgr protein and comprises the amino acid sequence of SEQ ID NO:2;

(B) is a fragment of (A) and has the activity of the human Rgr protein of SEQ ID NO:2; or

(C) is a naturally occurring variant of (A).

2. The polypeptide of claim 1 which is human Rgr protein and comprises the amino acid sequence of SEQ ID NO:2.

3. The polypeptide of claim 1 which is a fragment of (A), wherein said fragment has the activity of the human Rgr protein of SEQ ID NO:2.

4. The polypeptide of claim 1 which is a naturally occurring variant of (A).

5. The polypeptide of claim 4, wherein said naturally occurring variant is an alternative splice variant.

6. The polypeptide of claim 4, wherein said naturally occurring variant is an abnormally truncated variant.

7. The polypeptide of claim 6, wherein said abnormally truncated variant has the amino acid sequence selected from the group consisting of SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:18, SEQ ID NO:20, SEQ ID NO:22, and SEQ ID NO:24.

8. The polypeptide of claim 6, wherein said abnormally truncated variant comprises SEQ ID NO:8.

9. A molecule having the antigen binding portion of an antibody that binds to the polypeptide of claim 8.

10. The molecule of claim 9, which binds to an epitope present in both the human Rgr protein of SEQ ID NO:2 and an abnormally truncated variant thereof, wherein said abnormally truncated variant comprises SEQ ID NO:8.

11. The molecule of claim 9, which binds to an epitope in SEQ ID NO:8.

12. The molecule of claim 9, which is a monoclonal antibody.

13. A pharmaceutical composition comprising the molecule of claim 9 and a pharmaceutically acceptable carrier, excipient, diluent, or auxiliary agent.

14. A method for diagnosing T cell malignancies associated with abnormal truncation of human Rgr protein, comprising:

contacting a sample containing T cells obtained from a human subject with the molecule of claim 9;

detecting the presence or absence of binding of the molecule of claim 9 to any abnormally truncated variant of human Rgr protein present in T cells of the sample;

diagnosing a T cell malignancy associated with abnormal truncation of human Rgr protein upon detecting the presence of binding between the molecule of claim 9 and an abnormally truncated variant of human Rgr protein.

15. A method for treating T cell malignancies associated with abnormal truncation of human Rgr protein, comprising administering to a human subject in need thereof a molecule of claim 9 to bind and block the effect of an abnormally truncated variant of human Rgr protein in malignant T cells of the human subject.

16. An isolated nucleic acid molecule comprising a nucleotide sequence encoding for the polypeptide of claim 1.

17. The nucleic acid molecule of claim 16, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:2.

18. The nucleic acid molecule of claim 17, wherein the nucleotide sequence encoding the polypeptide comprises nucleotides 1171 to 2589 of SEQ ID NO:1.

19. The nucleic acid molecule of claim 16, wherein the polypeptide is a fragment of (A) and has the activity of the human Rgr protein of SEQ ID NO:2.

20. The nucleic acid molecule of claim 16, wherein the polypeptide is a naturally occurring variant of (A).

21. The nucleic acid molecule of claim 20, wherein said naturally occurring variant is an alternative splice variant.

22. The nucleic acid molecule of claim 20, wherein said naturally occurring variant is an abnormally truncated variant.

23. The nucleic acid molecule of claim 22, wherein said abnormally truncated variant comprises SEQ ID NO:8.

24. The nucleic acid molecule of claim 23, comprising the nucleotide sequence of SEQ ID NO:7.

25. The nucleic acid molecule of claim 22, comprising a nucleotide sequence of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, or a combination thereof joined together as a contiguous sequence.

26. The nucleic acid molecule of claim 22, comprising a nucleotide sequence selected from the group consisting of SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, and SEQ ID NO:23.

27. A method for diagnosing T cell malignancies associated with abnormally truncated transcripts of human rgr oncogene and/or abnormal truncation of human Rgr protein, comprising:

subjecting a nucleic acid molecule, isolated from T cells obtained from a human subject, to amplification using a primer from the nucleotide sequence of claim 25 and a primer from a nucleotide sequence which is present in both the nucleotide sequence encoding said abnormally truncated variant and nucleotides 1171 to 2589 of SEQ ID NO:1;

detecting the presence or absence of amplification products corresponding to abnormally truncated transcripts of human rgr; and

diagnosing a T cell malignancy associated with abnormally truncated transcripts of human rgr and/or abnormal truncation of human Rgr protein upon detecting the presence of amplification products corresponding to abnormally truncated transcripts of human rgr.

28. An antisense oligonucleotide complementary to a messenger RNA, which is the nucleic acid molecule of claim 26, and encoding an abnormally truncated variant of human Rgr protein, wherein said oligonucleotide inhibits the production of said abnormally truncated variant of human Rgr protein.

29. A method for treating T cell malignancies associated with abnormally truncated transcripts of human rgr oncogene and/or abnormal truncation of human Rgr protein, comprising causing the antisense oligonucleotide of claim 28 to contact abnormally truncated transcripts of human rgr and

inhibit the production of an abnormally truncated variant of human Rgr protein in T cells of a human patient in need thereof.

30. A double stranded RNA molecule, one of whose strands is complementary to a messenger RNA, which messenger RNA is the nucleic acid molecule of claim 26 and encodes an abnormally truncated variant of human Rgr protein.

31. The double stranded RNA molecule of claim 30, which inhibits the production of said abnormally truncated variant of human Rgr protein.

32. The double stranded RNA molecule of claim 31, comprising the nucleotide sequence of SEQ ID NO:27.

33. A method for treating T cell malignancies associated with abnormally truncated transcripts of human rgr oncogene and/or abnormal truncation of human Rgr protein, comprising causing the double stranded RNA molecule of claim 31 to contact abnormally truncated transcripts of human rgr and inhibit the production of human Rgr protein in T cells of human patient in need thereof.

34. A vector comprising the nucleic acid molecule of claim 16.

35. A host cell transformed with the nucleic acid molecule of claim 16.